

Comparisons of Job Characteristics

Focus Occupation: Supervisors of Construction and Extraction Workers (47-1011)
Associated Occupation: Mining and Geological Engineers, Including Mining Safety Engineers (17-2151)

Compare Knowledge
 Compare Skills
 Compare Abilities
 Compare Detailed Work Activities
 Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 59

Focus Occupation: Supervisors of Construction and Extraction Workers (47-1011)

Associated Occupation: Mining and Geological Engineers, Including Mining Safety Engineers (17-2151)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Engineering and Technology	5.7	20.6	10.6	<<	Extensive education and/or training may be required
Design	5.2	16.6	10.9	<<	Extensive education and/or training may be required
Mathematics	9.2	15.3	12.8	<	Expanded education and/or training may be required
Production and Processing	6.0	12.6	9.5	<<	Extensive education and/or training may be required
Law and Government	5.9	12.5	6.0	<<	Extensive education and/or training may be required
Physics	4.3	11.4	5.8	<<	Extensive education and/or training may be required
Public Safety and Security	6.9	10.9	10.2	0	Current knowledge level may be sufficient
Building and Construction	4.0	10.7	16.9	>>	Current knowledge level is likely more than sufficient
Chemistry	4.8	10.2	6.2	<<	Extensive education and/or training may be required
Geography	3.9	10.2	3.7	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 44

Focus Occupation: Supervisors of Construction and Extraction Workers (47-1011)

Associated Occupation: Mining and Geological Engineers, Including Mining Safety Engineers (17-2151)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Judgment and Decision Making	9.4	15.1	10.0	<<	Extensive development of skills in this area may be required
Complex Problem Solving	9.1	14.8	9.1	<<	Extensive development of skills in this area may be required
Mathematics	6.2	13.9	6.4	<<	Extensive development of skills in this area may be required
Monitoring	9.9	13.9	10.0	<<	Extensive development of skills in this area may be required
Systems Analysis	6.5	13.0	7.2	<<	Extensive development of skills in this area may be required
Systems Evaluation	6.4	12.7	7.3	<<	Extensive development of skills in this area may be required
Operations Analysis	5.0	11.5	7.6	<<	Extensive development of skills in this area may be required
Management of Financial Resources	3.3	9.8	4.4	<<	Extensive development of skills in this area may be required
Management of Material Resources	3.7	9.7	5.6	<<	Extensive development of skills in this area may be required
Programming	2.2	8.3	1.7	<<	Extensive development of skills in this area may be required
Technology Design	2.6	7.3	2.3	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 88			
Focus Occupation: Supervisors of Construction and Extraction Workers (47-1011) Associated Occupation: Mining and Geological Engineers, Including Mining Safety Engineers (17-2151)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Oral Comprehension	12.5	16.3	13.4	<	Some improvement in abilities may be required
Written Comprehension	11.0	15.7	10.7	<<	Extensive improvement in abilities may be required
Deductive Reasoning	10.6	15.5	11.2	<<	Extensive improvement in abilities may be required
Written Expression	9.8	15.1	10.6	<<	Extensive improvement in abilities may be required
Problem Sensitivity	11.1	14.8	12.1	<	Some improvement in abilities may be required
Information Ordering	9.9	14.4	10.1	<<	Extensive improvement in abilities may be required
Inductive Reasoning	10.2	14.1	10.4	<<	Extensive improvement in abilities may be required
Category Flexibility	9.0	13.8	8.8	<<	Extensive improvement in abilities may be required
Mathematical Reasoning	6.3	12.8	6.9	<<	Extensive improvement in abilities may be required
Visualization	7.5	12.4	9.8	<	Some improvement in abilities may be required

Flexibility of Closure	7.8	12.2	7.7	<<	Extensive improvement in abilities may be required
Fluency of Ideas	7.6	11.8	8.8	<<	Extensive improvement in abilities may be required
Speed of Closure	5.9	8.7	5.4	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 83

Focus Occupation: Supervisors of Construction and Extraction Workers (47-1011)

Associated Occupation: Mining and Geological Engineers, Including Mining Safety Engineers (17-2151)

Work Activities	Exclusivity of Activity
Assign work to staff or employees	30
Conduct training for personnel	30
Direct and coordinate activities of workers or staff	3
Direct and coordinate construction of mine shafts or tunnels	89
Direct and coordinate mining operations	99
Inspect project operations, or site to determine specification compliance	72
Perform safety inspections in construction or resource extraction setting	46
Plan construction of structures or facilities	75
Prepare reports	8
Prepare safety reports	60
Read blueprints	10
Read technical drawings	7
Understand construction specifications	53

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 83

Focus Occupation: Supervisors of Construction and Extraction Workers (47-1011)

Associated Occupation: Mining and Geological Engineers, Including Mining Safety Engineers (17-2151)

Tools and Technologies	Exclusivity
Audio and visual equipment	4
Business function specific software	1
Calculating machines and accessories	3
Computer data input devices	2
Computers	1
Content authoring and editing software	1

Data management and query software	1
Forming tools	2
Geophysical and geotechnical instruments	23
Industry specific software	1
Measuring and layout tools	3

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.